

- 430—439 Radius, upper extremity.
 440—449 ———, lower extremity.
 450 ———, with carpal and part of metacarpal.
 451 ———, perfect, with part of ulna, fragments, 452.
 453 Calitus.
 454—466 Carpal and tarsal bones.
 467—527 Metacarpal and metatarsal bones.
 528—537 Astragalus.
 538—551 Calcaneum, very large.
 552—562 Phalanges.
 563 Ribs, fragment of.

HYÆNA.

- 600 Upper jaw, in good preservation.
 601 Canine and 1st molar of do.
 602 Lower jaw, entire, and fragment, 603.
 604 Cranium.
 605 Three molars of some canine animal.
 606 Metatarsal bones of some carnivorous animal.

SAURIAN.

- 700—717 Vertebræ of Saurian reptiles.
 718 Cranium of *Gharial*.
 719—724 Plates of crocodilidæ.

Besides about 120 fragments not identified, received with the second dispatch; the whole of the first donation unregistered, and some gigantic testudinous plates, presented by Col. COLVIN personally while in Calcutta.

GIGANTIC ELK, (presented by Mr. Conductor W. DAWE,) found in the *Ganawer Khúl*, near the *Haripúl* branch of the *Sombe* river.

- D 3 4 Portions of the antler.
 D 5 Axis of second cervical vertebra.
 D 6 Cervical vertebra of do.

BUFFALO? presented by the same.

- D 1 Head of bos or buffalo with one horn.
 D 2 Piece of horn, supposed to belong to the same.

V.—Notice of a Visit to the Valley of Kashmir in 1836. By the Baron HUGEL.

[Read on the 6th April.]

On my way to Bombay to embark for Europe, I take the liberty of addressing you a few lines, requesting your doing with them what you think best: they relate to my journey to Kashmir. I was in hopes of being able to send you a more elaborate memoir, but my time is very much limited, that I am afraid of postponement, and hasten rather to offer you a few notes as they were collected. I understand that Mr. JACQUEMONT'S travels are now published. I think therefore that it may be of some interest to the Indian reading public, to have before it some observations, not influenced by the above mentioned work, made by a traveller a few years later, to compare them together. As

before a regular publication of my residence in 1835 can be made in Europe and reach India, that of Mr. JACQUEMONT will have lost much of its interest as a new topic, I do not hesitate to come forward with my notes in their original form, how unfavourable to them it may be.

Kashmír in a political and financial point of view, has been much over-rated : not in a picturesque one. The valley in its length, from N. W. by W. to S. E. by E. is little more than 80 miles long ; the breadth crossing the former line, varying from 30 miles to 6. I speak of the actual plains : from the eternal snow of the Pír Panjáhl to the Tibet Panjáhl are 50 to 60 miles : both ranges run nearly parallel in the first direction, with a great number of peaks. The height of the passes from Bimbar to Kashmír, and that from Kashmír to Iscardo is the same, 13,000 feet ; the highest point of the Pir Panjáhl, 15,000 feet by the boiling point. The city of Kashmír 6,300 feet* ; Kashmír town, Daláwer Khán Bagh on the 19th November, gave meridional altitude 72° 4', artificial horizon, which shews its northern latitude to be 34° 35'.

Population.—Four years ago about 800,000 ; now not exceeding 200,000. The valley is divided in 36 pergunahs, containing ten towns and 2,200 villages. Kashmír town contains still 40,000 inhabitants ; Chupinian, 3000 ; Islámabád and Pámpur, 2000. It was not the bad administration of the Sikhs, but a famine brought on by frost at the time the rice was in flower, and cholera in consequence of it, that reduced the population to one fourth of the former number by death and emigration : many villages are entirely deserted. Chirar town contains now 2000 houses and only 150 inhabitants !

Revenue.—Last year very nearly nothing, RANJÍ'T SINGH wishing that the country should recover : this year (1836) he asks 23 lakhs from the Governor MOHAN SINGH, which the country cannot give. The emigration has brought to the Panjáb and Hindustán many shawl manufacturers, and Kashmír will most likely *never* yield again what it did a few years ago. Núrpur, Lodiána, and many other places can bring to the market shawls cheaper than Kashmír, where every article of food is dearer than in the Panjáb and Hindustán.

Twelve passes, *Pansahl* in the Kashmír language (from which Pir Panjhál of the Musalmans) now exist ; three to Tibet (Iscardo and Ladak) ; eight to the Panjáb ; one to the west. In former times there were only seven : the defence of which was entrusted to Malliks with hereditary appointments : four passes are open the whole year : one to Ladák, the western pass, (Baramulla,) and two to the south.

* Three thermometers brought it very near to the same height.

Wuler lake is 30 miles from E. to W.

Brahmans, the only Hindús in Kashmír, 25,000 in 2000 families ; they are Vishnuvaites and Sivaites, divided into three divisions, who all intermarry : they are darker than the other inhabitants, owing to a colony sent for from the Dekhan about 800 years ago, after the aboriginal Brahman race was nearly extinguished by the persecution of the Muhammedans.

There is not in the valley the slightest appearance of its having been drained : the pass through which the Jhelum found its way is one of the most beautiful of the world : its bed 1000—1500 feet deep : I do not believe more in the traditions of the Kashmírian Brahmans than in the fables of Manethon.

All the remaining temples are Bauddha, of a different shape from any I have ever seen ; only one small one reminds me of the caves of Ellora : I have observed no Dagoba. Korán Pandan, near Islámabád, Anatanagh of old, is not only the largest ruin of Kashmír, but one of the splendid ruins of the world :—noble proportions ;—material black marble. I was nearly led into error, at first thinking its form Grecian. The building had nothing on a closer examination which could justify such a hypothesis. Very few temples remain in Kashmír in tolerable preservation, having mostly been destroyed by a fanatic Musalman*, whose zeal did not succeed in overturning them all.

The only trace of fossil remains in the valley is in a limestone, which contains small shells.

Nature has done much for Kashmír, art more ; the whole valley is like a nobleman's park : the villages, being surrounded with fruit trees, and having in their centre immense plane and poplar trees, form large masses, having between them one sheet of cultivation, through which the noble river winds itself in elegant sweeps.

The botany of Kashmír is not rich, and is very nearly allied to that of the Himálaya, between Massuri and Simlah : in the valley itself not a plant is to be seen of indigenous origin : the northern declivity of the mountains is rich in vegetation, the southern steep and barren. The Chunar is the *Platanus Orientalis*, which so far from being a native of Kashmír does there produce no germinating seeds, and is multiplied by cuttings, which, since the Moghul Emperor, have not been kept up. It is a very extraordinary phenomena to witness the *Nilumbium speciosum* growing where the orange tree is destroyed by frost. *Misri yaleb* is not a native of Kashmír.

I made a remark on the Pir Panjhál, which I afterwards had occasion to observe several times, and which is new to me : that the freez-

* Sikandar, Bhutshikan, A. D. 1396.

ing point on the thermometer advances at great elevations in a similar proportion as the boiling point retrocedes : thus the water boiling for instance with 191, the sun with 44 degrees Fahr., did not make any impression upon a piece of ice lying on a black soil, the latter not being moistened*. This must be the case, although I do not recollect to have seen it mentioned : on a certain height above the surface of the globe, the freezing point and the boiling point must meet†, heat and cold being phenomena belonging exclusively to our globe. My observations led me to believe, that this may be at 84,100 feet above the surface of the sea, or in other words that there finishes our atmosphere.

The burning gases at Jwalamukí are of a very extraordinary nature, nothing of sulphur or naphtha in them. They have a most delicious smell, something like a French perfume with ambergris. The flames, about 10 in number, come out of a dark grey sandstone on perpendicular places : temples are built over them : I attributed the effect to priestcraft, until in one of the temples called Ghurka Debi, I was allowed to try experiments, and remained alone : I blew out the flame, which did not re-ignite from itself : there is nothing particular on the places where the flame came out : no change in the colour or substance of the stone, or in its hardness. Water in small quantity is formed in little reservoirs under the flames, being the produce of them : this water takes fire too from time to time, when enough inflammable matter is collected on the surface. I took a bottle of it for you, which Captain WADE will be so kind as to forward to you for examination‡ ; it has however now undergone a terrible alteration by putrefaction, and I am afraid that you will not be able to analyse it. The taste of it when fresh can distinguish nothing of its composition : it is not unpleasant to drink, and of a milky-greenish colour. No traces of volcanic matter near it.

I have picked up many coins, which appear to me new ; of some I am certain : those of the Kashmírian kings, of the Bauddha time, found near the town Bij Bahara (no doubt a corruption of *Vidya vihara*, temple of Wisdom, if my Sanscrit does not forsake me) : I intended sending them to you, but they found their way in one of my tin boxes : I cannot guess in which, and for this reason do not open them : whenever I come to them I shall send you them, or their exact likeness.

* The explanation of this circumstance should rather be sought in the dryness of the air at such an elevation ; and the consequent rapid evaporation which carried off the ice as it melted—ice itself will, it is well known, wholly evaporate in a vacuum.—ED.

† By DALTON'S tables, the aqueous tension of freezing water is 0.20 inch ; therefore water will boil and freeze together at a height of 130560 feet, or about 25 miles.—ED.

‡ This had not yet reached us : nor the coins, which we desire much to see.—ED.